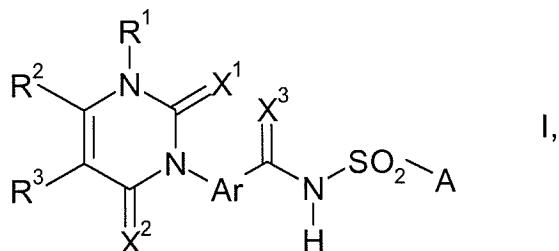


CLAIMS:

1. (Currently amended) A process for preparing a compound of formula I



where the variables are each defined as follows:

R¹ is hydrogen, cyano, amino, C₁-C₆-alkyl, C₁-C₃-cyanoalkyl, C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy, C₃-C₇-cycloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₃-C₆-alkynyl, C₃-C₆-haloalkynyl or phenyl-C₁-C₄-alkyl;

R² and R³ are each independently hydrogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₇-cycloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₃-C₆-alkynyl or C₃-C₆-haloalkynyl;

X¹, X² and X³ are each independently oxygen or sulfur;

Ar is phenyl, which may be mono- or polysubstituted by the following groups: hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl; and

A is -NR⁵R⁶ where the variables R⁵ and R⁶ are each defined as follows: R⁵ and R⁶ are each independently

hydrogen, C₁-C₁₀-alkyl, C₂-C₁₀-alkenyl or C₂-C₁₀-alkynyl, each of which may be unsubstituted or substituted by one of the following radicals:

C₁-C₄-alkoxy, C₁-C₄-alkylthio, CN, NO₂, formyl, C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkylaminocarbonyl, C₁-C₄-dialkylaminocarbonyl, C₁-C₄-alkylsulfinyl, C₁-C₄-alkylsulfonyl, C₃-C₁₀-cycloalkyl, 3- to 8-membered heterocyclyl having from one to three heteroatoms selected from O, S, N and an NR⁷ group where R⁷ is hydrogen, C₁-C₆-alkyl, C₃-C₆-alkenyl or C₃-C₆-alkynyl[[,]];

or

~~phenyl which may itself have 1, 2, 3 or 4 substituents selected from halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-fluoroalkyl, C₁-C₄-alkyloxycarbonyl, trifluoromethylsulfonyl, C₁-C₃-alkylamino, C₁-C₃-dialkylamino, formyl, nitro or cyano;~~

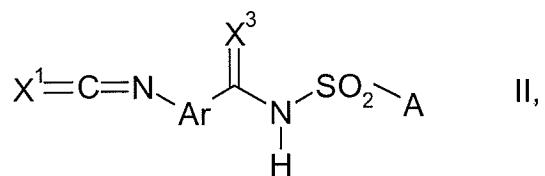
~~C₁-C₁₀-haloalkyl, C₂-C₁₀-haloalkenyl[[,]] or C₂-C₁₀-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₁₀-cycloalkenyl, 3- to 8-membered heterocyclyl having from one to three heteroatoms selected from O, S, N and an NR⁷ group where R⁷ is hydrogen, C₁-C₆-alkyl, C₃-C₆-alkenyl or C₃-C₆-alkynyl,~~

~~phenyl or naphthyl, where C₃-C₈-cycloalkyl, C₃-C₁₀-cycloalkenyl, 3- to 8-membered heterocyclyl, phenyl or naphthyl, each may themselves have 1, 2, 3 or 4 substituents selected from halogen, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-fluoroalkyl,~~

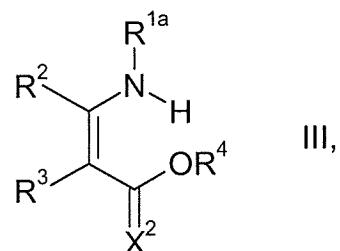
~~C₁-C₄-alkyloxycarbonyl, trifluoromethylsulfonyl, formyl, C₁-C₃-alkylamino, C₁-C₃-dialkylamino, phenoxy, nitro or cyano; or~~

R^5 and R^6 together form a saturated or partially unsaturated 5- to 8-membered nitrogen heterocycle which may have, as ring members, one or two carbonyl groups, thiocarbonyl groups and/or one or two further heteroatoms selected from O, S, N and an NR^7 group where R^7 is hydrogen, C_4 - C_6 -alkyl, C_3 - C_6 -alkenyl or C_3 - C_6 -alkynyl, and which may be substituted by C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy and/or C_4 - C_4 -haloalkyl;

comprising reacting a phenyl iso(thio)cyanate of the formula II



where the variables X^1 , X^3 , Ar and A are each as defined above, with an enamine of the general formula III



where

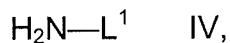
R^{1a} is as defined above for R^1 with the exception of amino;

R^2 , R^3 and X^2 are each as defined above; and

R^4 is $C_1\text{-}C_6\text{-alkyl}$, $C_1\text{-}C_6\text{-haloalkyl}$, $C_1\text{-}C_3\text{-alkoxy-C}_1\text{-}C_3\text{-alkyl}$, $C_1\text{-}C_3\text{-alkylthio-C}_1\text{-}C_3\text{-alkyl}$, $C_2\text{-}C_6\text{-alkenyl}$, $C_2\text{-}C_6\text{-haloalkenyl}$, $C_3\text{-}C_6\text{-alkynyl}$, $C_3\text{-}C_6\text{-haloalkynyl}$, $C_3\text{-}C_7\text{-cycloalkyl}$, $C_1\text{-}C_6\text{-cyanoalkyl}$ or benzyl which is itself unsubstituted or substituted on the phenyl ring by methyl , methoxy , methylthio , halogen , nitro or cyano ;

in the presence of from 1.8 to 2.6 base equivalents per mole of the phenyl iso(thio)cyanate of the formula II;

and, if appropriate, in a further step, reacting the resulting 3-phenyl(thio)uracil or 3-phenyldithiouracil of the formula I where $R^1=R^{1a}$, where R^1 is hydrogen, with an aminating agent of the formula IV



where L^1 is a nucleophilic leaving group

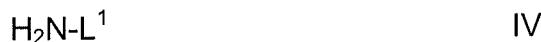
to give a 3-phenyl(thio)uracil or 3-phenyldithiouracil of the formula I where $R^1 = \text{amino}$.

2. (Original) The process according to claim 1, wherein the reaction is effected in the presence of a base which is selected from alkali metal and alkaline earth metal carbonates, alkali metal and alkaline earth metal alkoxides, alkali metal and alkaline earth metal hydrides and tertiary amines.
3. (Previously presented) The process according to claim 1, wherein the reaction is effected in a solvent comprising at least one aprotic polar solvent, and the aprotic polar solvent has a water content of from 0 to 0.5% by weight, based on the total amount of compound II, compound III and solvent.
4. (Original) The process according to claim 3, wherein the solvent comprises at least 50% by volume of an aprotic polar solvent selected from carboxamides, carboxylic esters, carbonates, nitriles and sulfoxides.
5. (Original) The process according to claim 4, wherein the solvent comprises at least 80% by weight of an aprotic polar solvent.

6. (Previously presented) The process according to claim 1, wherein from 0.9 to 1.3 mol of the enamine of the formula III are used per mole of the compound II.

7. (Previously presented) The process according to claim 1, wherein a 3-phenyl-(thio)uracil or a 3-phenyldithiouracil, where R¹ is hydrogen, is prepared and this compound I is subsequently

(A) reacted with an aminating agent of the formula IV



where L¹ is a nucleophilically displaceable leaving group to obtain a compound of the formula I where

R¹ is amino; and

the variables R², R³, X¹, X², X³, Ar and A are each as defined above;

or

(B) reacted with an alkylating agent of the formula V



where

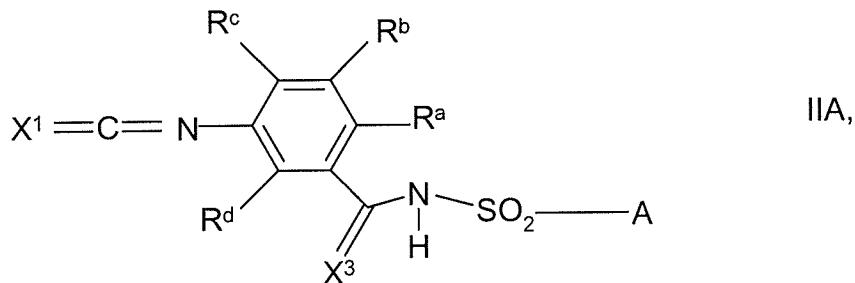
R^{1b} is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₇-cycloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₃-C₆-alkynyl or C₃-C₆-haloalkynyl; and

L² is a nucleophilically displaceable leaving group;
to obtain a compound of the general formula I where

R¹ is as defined for R^{1b}; and

the variables R², R³, X¹, X², X³, Ar and A are each as defined above.

8. (Previously presented) The process according to claim 1, wherein the phenyl iso(thio)cyanate of the formula II is described by the formula IIA



where

X¹, X³ and A are each as defined above and

R^a, R^b, R^c and R^d are each independently

hydrogen, halogen, cyano, C₁-C₄-alkyl or C₁-C₄-haloalkyl.

9. (Original) The process according to claim 8, wherein, in formula IIA,

R^a is halogen, cyano or trifluoromethyl;

R^c is hydrogen or halogen; and

R^b and R^d are each hydrogen.

10. (Canceled)

11. (Currently amended) The process according to claim 1, wherein R⁵ and R⁶ are each defined as follows: R⁵ and R⁶ are each independently

hydrogen, C₁-C₆-alkyl which may if appropriate carry optionally carries a substituent selected from the group consisting of halogen, cyano, C₁-C₄-alkoxy, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkylthio, C₃-C₈-cycloalkyl, furyl, thienyl, 1,3-dioxolanyl and phenyl which may itself optionally be substituted by carries a substituent selected from the group consisting of halogen [[or]] and C₁-C₄-alkoxy;

or

C₂-C₆-alkenyl[[,]] or C₂-C₆-alkynyl, C₃-C₈-cycloalkyl or phenyl which may if appropriate carry optionally carries 1 or 2 substituents selected from the group consisting of halogen, C₁-C₄-alkyl, C₁-C₄-fluoroalkyl, C₁-C₄-alkoxy, C₁-C₄-alkoxycarbonyl, nitro and C₁-C₃-dialkylamino-

~~naphthyl or pyridyl; or~~
~~R⁵ and R⁶ together form a five-, six- or seven-membered saturated or unsaturated nitrogen heterocycle which may contain, as a ring member, one further heteroatom selected from N, O and an NR⁷ group~~
~~where R⁷ is hydrogen, C₁-C₆-alkyl, C₃-C₆-alkenyl or C₃-C₆-alkynyl,~~
~~and/or may be substituted by one, two or three substituents selected from~~
~~C₁-C₄-alkyl and C₁-C₄-haloalkyl.~~

12. (Previously presented) The process according to claim 1, wherein X¹, X² and X³ are each oxygen.

13. (Previously presented) The process according to claim 1, wherein R¹ is hydrogen, amino or C₁-C₄-alkyl.

14. (Previously presented) The process according to claim 1, wherein R² is hydrogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl.

15. (Previously presented) The process according to claim 1, wherein R³ is hydrogen.

16. (Canceled)

17. (Previously presented) A process of claim 1, wherein R¹ is hydrogen, further comprising reacting said compound of Formula I wherein R1 is hydrogen with an alkylating agent of Formula V



wherein L² is a nucleophilically displaceable leaving group and

wherein R^{1b} is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₇-cycloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₃-C₆-alkynyl or C₃-C₆-haloalkynyl.